

UNITED STATES DISTRICT COURT

for the

DISTRICT OF MASSACHUSETTS

UNITED STATES OF AMERICA,

Plaintiff,

CIVIL ACTION

v No. 85-0489-MA

METROPOLITAN DISTRICT COMMISSION,

et al.

Defendants.

CONSERVATION LAW FOUNDATION OF

NEW ENGLAND, INC.,

Plaintiff,,

CIVIL ACTION

v. No. 83-1614-MA

METROPOLITAN DISTRICT COMMISSION,

Defendants.

MWRA MONTHLY COMPLIANCE REPORT

FOR AUGUST 2000 AND

PROGRESS REPORT AS OF SEPTEMBER 15, 2000

The Massachusetts Water Resources Authority (the "Authority") submits the following monthly compliance report for the month of August 2000 and supplementary compliance information in accordance with the Court's order of December 23, 1985, subsequent orders of the Court and undertakings of the Authority.

I. Schedule Six.

A status report for the scheduled activities for the month of August 2000 on the Court's Schedule Six, certified by Douglas B. MacDonald, Executive Director of the Authority, is attached hereto as Exhibit "A."

A. Activities Completed.

1. Complete Construction of Trunk Sewer Relief for CHE 002-004.

On August 31, 2000, the Authority substantially completed the construction of the Chelsea Trunk Sewer Relief project in compliance with Schedule Six. The project included replacing the existing Chelsea Trunk Sewer with 2,300 feet of 30-inch pipe, as well as replacing and repairing sections of combined sewer overflow ("CSO")

outfalls CHE 002 and 003. With the completion of the project, the Authority expects that the CSO discharges at CSO outfalls CHE 002, 003, and 004 (located along the confluence of the Mystic River and Chelsea Creek) will be eliminated in a typical rainfall year, bringing these discharges into compliance with state water quality standards.

2. Complete Construction of Hydraulic Relief for CAM 005.

As previously reported, the Authority completed the hydraulic relief project at CAM 005 earlier this year, well in advance of the Schedule Six milestone.¹ The project, which included the installation of a section of 54-inch pipe and the relocation and raising of an overflow weir, provides hydraulic relief to the existing 24-inch connection between the Cambridge combined sewer system and the Authority's North Charles Relief Sewer. The Authority expects that the CSO discharges at CAM 005 will be reduced from 11 to two in a typical rainfall year.

B. Progress Report.

1. Harbor Management.

(a) Effluent Outfall Tunnel.

Following the completion of the final steps of construction of the Effluent Outfall Tunnel, on September 6, 2000, the Authority closed the gates used to direct the flow to the old Deer Island outfalls and discharged the flow through the new tunnel. Prior to redirecting the flow, Deer Island Treatment Plant staff successfully tested the new dechlorination system and learned many valuable lessons, enabling it to formulate the final plan for the operation of the Effluent Outfall Tunnel.

The start up of the Effluent Outfall Tunnel marks the end of the discharge of wastewater into Boston Harbor and the completion of one of the most significant milestones for the Boston Harbor Project. The nine and one-half mile outfall tunnel, which is 350 feet below sea level and 250 feet below the ocean floor, took ten years to complete. To date, the total cost to design and construct the outfall tunnel and outfall diffusers is \$390 million. In celebrating the completion of the tunnel, the Authority recognizes the efforts of many individuals who contributed to achieving this milestone.

(b) Secondary Battery C.

Although the contractor for Secondary Battery C continues to make progress toward completing construction, new issues entailing additional delays arose during the past month. The Construction Manager ("CM") completed inter-CP testing for the six and 12 multiple return sludge line ("RSL") pumps. To date, the contractor has completed more than 4,900 punch list items critical for turnover, with approximately 390 remaining. However, completion of coating repairs was further delayed. Unexpectedly, the contractor was unable to perform coating work in one of the reactor trains while the adjacent reactor effluent channel was filled with water for use with the RSL pump tests. Because of moisture seeping through the concrete from the channel, the contractor was forced to postpone the coating repairs until the 12-pump RSL test was complete and the channel could be drained. The contractor completed the coating repairs today and is currently filling the train with water. Once the train is full, the CM will commence the 16-pump RSL test. The Authority expects that the RSL test and the remaining punch list items critical for turnover will be completed in early October.

In addition, a new problem appeared during testing and inspection of the coatings in one of the reactor channels. The Authority and the CM identified areas in reactor train No. 2 with insufficient concrete cover over the steel reinforcing bar (rebar) imbedded in the concrete. The project designer determined that, in order to ensure the structural integrity of the concrete, the contractor will need to place an additional three inches of concrete in the affected areas (approximately 1,400 square feet). The preliminary estimated duration of this work, which requires preparing the concrete surfaces and installing steel pins and mesh to ensure that the new concrete is firmly bonded to the existing wall, is approximately four weeks. The work will begin as soon as testing is complete and the reactor drained, hopefully by the first week of October.

To mitigate this delay, the Authority and the CM are working with the contractor to explore the feasibility of accepting partial use of much of Secondary Battery C before the concrete repairs are complete. This approach would allow Deer Island Treatment Plant ("DITP") staff to begin their checkout and testing program in significant portions of the facility while the concrete repairs are in progress. Based on past experience, the Authority expects that DITP's testing program will take approximately six to ten weeks overall. Actual water testing must await full turnover of the facility after all of the contractor's work is complete. Although the Authority will do everything possible to minimize the additional delay, full turnover is unlikely to occur before the beginning of November. DITP staff will complete the testing program as soon as possible thereafter, so that the Authority can introduce wastewater into Secondary Battery C and complete the final milestone associated with the new treatment plant.

2. Combined Sewer Overflow Program.

(a) Cambridge Sewer Separation.

As anticipated, the Authority and the City of Cambridge met with the Environmental Protection Agency ("EPA"), the Department of Justice and the Massachusetts Department of Environmental Protection ("DEP") on August 21, 2000 to discuss the Draft Report on Re-evaluation of CSO Control Alternatives for Alewife Brook previously submitted to EPA and DEP and described in last month's report. The Authority is currently preparing supplemental information to address comments and questions raised at the meeting and in a subsequent memorandum received from DEP.

(b) Cottage Farm CSO Facility Upgrade.

Efforts to resolve problems encountered with the automatic sampling systems and flow meters at the newly upgraded Cottage Farm CSO Facility are ongoing. The Authority has completed the installation of plumbing fixtures purchased to retrofit the effluent pre- and post-dechlorination sampling systems, and these strainer systems are ready for service.

In addition, the Authority is working on implementing an alternative method of flow measurement in its continued pursuit of an automated flow and chemical dosing system for this facility. The Authority has issued a purchase order for plumbing modifications and changed certain wiring in the automated control system. Staff are also reviewing a draft of a modified control strategy for the automated control system programming. Once these changes are implemented and the review is completed, the Authority expects to test the alternative method of flow measurement.

The Authority notes that the Cottage Farm CSO facility upgrade is the first of five CSO facility upgrades that will have automated systems. The problems encountered at the Cottage Farm facility may have to be addressed at the other facilities prior to completion of construction. For instance, the Authority is changing the automated control strategy at the Prison Point facility to reflect the modifications at Cottage Farm, because it has determined that the flow meters planned for the influent channels will not work.

(c) North Dorchester Bay and Reserved Channel Consolidation Conduits and CSO Facility.

The Authority is continuing to work on preparing a draft Notice of Project Change ("NPC") regarding the North Dorchester Bay and Reserved Channel CSO projects for internal review. This document is expected to propose a scope and schedule for a reassessment under MEPA² of alternative sites and approaches to the projects planned to provide CSO control to North Dorchester Bay beaches and to Reserved Channel.

3. Five-Year Progress Report.

The Authority has submitted its Five-Year Progress Report to the Governor, the Massachusetts Legislature, and the Authority's Advisory Board, in accordance with its enabling Act (distribution of the report to a wider audience is also underway). The report documents the Authority's accomplishments for the years 1995-99 as well as anticipated challenges for the future. A copy of the report, prepared with the assistance of an independent

citizen panel, is attached as Exhibit "B." The report, which includes a letter from the independent panelists detailing their thoughts on future imperatives and challenges for the Authority, focuses on the Authority's efforts to protect public health, promote environmental stewardship, maintain consumer confidence and keep rates affordable. The report also notes significant progress on the Boston Harbor Project and the Integrated Water Supply Improvement Program, as well as ongoing and long-term efforts to protect assets through comprehensive maintenance and rehabilitation programs.

4. Infiltration and Inflow.

On September 13, 2000, Authority staff submitted an Annual Progress Report on the Infiltration and Inflow ("I/I") Local Financial Assistance Program to the Board of Directors. To date, the Board has approved a budget of \$100.75 million for the program. Since the inception of the program, the Authority has distributed a total of \$63 million to fund more than 170 local I/I reduction and sewer system rehabilitation projects in 42 communities. Distribution of the remaining \$38 million in funds has been approved through Fiscal Year 2005. A table, attached as Exhibit "C," lists the funding allocations and total remaining funds by community.

The Authority has continued to meet with the I/I Task Force formed in 1999 on a regular basis to develop regional I/I reduction goals and specific implementation strategies.³ A draft report that will include its recommendations is in preparation.

5. Schedule Six Revision.

The Authority submits as Exhibit "D" a proposed revision to the Court's Schedule Six. The proposed schedule amends Schedule Six by incorporating orders entered by the Court through August 9, 2000. The amendments include deferrals for submitting a Supplemental Environmental Impact Report and obtaining MEPA certification for the Fox Point CSO facility upgrade and for the design and construction of the CSO in-line storage project in the Dorchester Brook Conduit. In addition, the proposed schedule incorporates a new milestone related to the submittal of a report to EPA and DEP regarding the Dorchester Brook Conduit. The Authority has circulated the proposed revision to the parties and has received no objections.

By its attorneys,

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Dated: September 15, 2000

Notes:

1. See Compliance and Progress Report dated March 15, 2000, pp. 19-20.

2. Massachusetts Environmental Policy Act.

3. See Compliance and Progress Reports for July 15, 1999 pp. 15-18 and December 15, 1998, pp. 15-16 for previous reports on the I/I Task Force.